

REMARKS

Claims 1 and 3-9 are in the instant application. Claims 1, 3 and 4 are rejected, and claims 5-9 are withdrawn. No claims are allowed or indicated allowable.

Claims 1, 3, and 4 are rejected under 35 U.S.C. § 103(a) as being unpatentable over WO 2004/020300 to Nakada et al. (hereinafter also referred to as “Nakada”), U.S. Patent Application Publication No. 2006/0151424 is relied on herein for translation and reference; and WO 03/074379 to Taylor (hereinafter also referred to as “Taylor”). Applicants respectfully traverse the rejection of claims 1, 3, and 4 under 35 U.S.C. § 103(a), and request reconsideration thereof.

The Office Action on page 4, paragraph 9, alleges that it would have been obvious to one having ordinary skill in the art at the time the invention was made to have disposed a barrier layer comprising hot melt polyethylene adhesive as disclosed by Taylor underneath the PET layer disclosed by Nakada in order to increase the barrier property of the stopper in the region in contact with liquid, and that this obvious modification of Nakada would have resulted in a stopper comprising an exterior PET layer with a polyethylene hot melt adhesive layer, as shown in Fig. 1 of Taylor by reference character (8), beneath it since Nakada requires the PET layer to be an exterior layer, and Taylor teaches that the barrier layer may be disposed inside the body of the stopper. The Office Action concludes by alleging that, since the barrier layer disclosed by Taylor is adhesive, one of ordinary skill in the art would have recognized that it could be disposed between the PET layer of Nakada and the polyethylene bonding layer of Nakada, or beneath the polyethylene bonding layer of Nakada.

The Office Action on pages 4 and 5, in paragraphs 10 and 11, alleges that the modification of Nakada with the teachings of Taylor would have produced a stopper in which the thickness of the adhesive polyethylene layer is 0.075 to 50 μm thicker in the liquid contact region of the stopper than in the outer peripheral region, and that this structure overlaps with the structure claimed in claim 1.

Applicants respectfully submit that one skilled in the art would not combine Nakada and Taylor, as alleged by the Office Action, to provide Applicants' invention as recited

in claim 1. More particularly, for the reasons presented below, a full appreciation of the invention clearly supports Applicants' position that claim 1 of the present invention is not obvious from the disclosures of Nakada and Taylor.

The Office Action alleges that "the barrier layer disclosed by Taylor is adhesive". However, Applicants respectfully submit that the barrier layer disclosed in Taylor is not used simply as an adhesive layer, as can be seen throughout the descriptions in the disclosure of Taylor. Specifically, the barrier layer of Taylor preferably includes at least one hot melt polymeric adhesive sub-layer, and preferably includes at least one hot melt polymeric adhesive sub-layer and at least one sub-layer having lower oxygen permeability than the hot melt adhesive (hereinafter simply referred to as "low oxygen permeability sub-layer") (see page 8, lines 11-16 of Taylor). The low oxygen permeability sub-layer disclosed in Taylor is used for preventing oxygen from penetrating through the core into the container, and, thus, has a function similar to that of the "polyester skin" of the present invention and that of the PET layer of Nakada. On the other hand, the hot melt polymeric adhesive sub-layer of Taylor serves as an adhesive layer for adhering the low oxygen permeability sub-layer to the core, and, thus, has a function similar to that of the "polyethylene bonding layer" of the present invention and that of the polyethylene bonding layer of Nakada.

As explained above, both Taylor and Nakada have portions corresponding to the "polyester skin" and the "polyethylene bonding layer" of the present invention, and the corresponding parts of Taylor and Nakada are substitutable for each other. Applicants respectfully submit that the container stopper of Taylor and that of Nakada are completed as inventions independently of each other, and no prior art suggests the use of these two at the same time. Further, Applicants respectfully submit that it cannot be obvious for those skilled in the art to dispose the entire barrier layer of Taylor between the PET layer and the polyethylene bonding layer of Nakada, since the PET layer of Nakada itself can prevent various compounds from penetrating into the container, and, thus, there is no need at all to uselessly introduce the barrier layer including the low oxygen permeability sub-layer between the PET layer and the polyethylene bonding layer or beneath the polyethylene bonding layer (simply put, introduce the barrier layer between the PET layer and the core).

Even under the assumption that the barrier layer of Taylor does not include the low oxygen permeability sub-layer, but includes the hot melt polymeric adhesive sub-layer alone, since the container stopper of Nakada already has the polyethylene bonding layer, there is no need at all for one skilled in the art to further introduce the barrier layer formed of the hot melt polymeric adhesive sub-layer between the PET layer and the core.

Since Nakada and Taylor fail to even suggest that the adhesive layer purposely consists of two separate layers, even if the teaching of Taylor is combined with the teaching of Nakada, it is not obvious for those skilled in the art that the barrier layer described in Taylor is introduced between the PET layer and the core of the container stopper of Nakada. Therefore, regardless of whether the teaching with respect to the thickness of the barrier layer is present, it is not obvious to set the relationship in thickness between the center portion and the outer peripheral portion of the polyethylene bonding layer to the relationship described in claim 1 of the present invention in order to prevent the formation of pinholes and “creases” such as in the present invention.


Furthermore, each of the barrier layer of Taylor and the polyethylene bonding layer of Nakada has a uniform thickness over the entire layer, and Taylor and Nakada even fail to suggest that the bonding layer has different thicknesses at different portions, and thus the configuration of claim 1 of the preset invention is not obvious from Taylor and Nakada.

Based on the foregoing, Applicants respectfully request withdrawal of the rejection of claims 1, 3, and 4, and request allowance thereof.

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This Response after Final Rejection is a sincere effort to place this application in condition for allowance. In the even issues remain, the Examiner is invited to call the undersigned before further action is taken on the case.

Respectfully submitted,
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